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ABSTRACT

A study examined first- and second-grade readers from the same basal reading series to determine if instructional flow could be identified from one level to another within a series. Three meaning-emphasis series and one word-recognition-emphasis series were selected because of their widespread use in public schools. Results indicated that: (1) two of the meaning-emphasis series were quite similar; (2) the third meaning-emphasis series presented the greatest balance between word-recognition and meaning-emphasis activities at the second-grade level; (3) comprehensibility of story selections was substantially different among series; and (4) all series were found to have an instructional flow from first to second grade. (Nine tables of data are included; 15 references and a description of the decoding and comprehension categories are attached.) (Author/RS)

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A COMPARISON OF FOUR BASAL READING SERIES AT THE FIRST- AND SECOND-GRADE LEVELS

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Abstract

A study examined first- and second-grade readers from the same basal reading series to determine if instructional flow could be identified from one level to another within a series. Specifically, the study examined whether the series organized instruction so that work presented in second-grade lessons built upon what was presented in first-grade lessons. Three meaning-emphasis series and one word-recognition-emphasis series were selected because of their widespread use in public schools. It was hypothesized that differences would be found in the activities that collectively might be considered "skills" work as well as in the number of vocabulary words presented and in the comprehensibility of the basal stories, but that there would be an instructional flow inherent in each series. Results revealed that two of the meaning-emphasis series are quite similar. The third meaning-emphasis series presented the greatest balance between word-recognition and meaning-emphasis activities at the second-grade level. Results of the analysis of comprehensibility of story selections showed substantial differences among series. All series were found to have an instructional flow from first to second grade.

A COMPARISON OF FOUR BASAL READING SERIES AT THE FIRST- AND SECOND-GRADE LEVELS

Researchers, teachers, parents, and school children know that basal reading series dominate reading instruction in the lower elementary grades. In fact, in *Becoming a Nation of Readers*, the acclaimed report by the Commission on Reading, Anderson, Hiebert, Scott, and Wilkinson (1985) asserted that "basal series 'drive' instruction" (p. 35). If we are to understand how children learn to read, we must undertake more research into the content and characteristics of basal reading series.

The primary purpose of this study was to examine first- and second-grade readers from the same series to determine if instructional flow could be identified from one level to another within a program. In other words, we wanted to determine whether a series contained instruction that had been planned to cover more than one school year. Specifically, we wanted to determine whether a series that emphasizes word recognition for first graders would go on to emphasize reading for meaning at the second-grade level, or whether another series might place an equal focus upon word identification and word meaning at both levels. The series we chose to study are not the most recent editions, rather they are the editions that had the widest use in American schools throughout the 1980s. We focused on these earlier editions because schools often use a series for a decade or more.

We compared the instructional content and text characteristics of four widely used first- and second-grade basal reading series that represent points along a word-recognition to meaning-emphasis continuum. We chose to focus on first- and second-grade lessons because it is in these grades that most American children first receive systematic reading instruction from textbooks and when they usually move from being nonreaders to readers with fairly automatic decoding and reasonably good comprehension skills.

The study discussed in this report builds upon our previously reported study (Meyer, Greer, & Crummey, 1987) that looked solely at first-grade basal reading series. It involved studying the contents of the series and then coding all existing exercises in the teachers' manuals, student readers, and supplementary worksheets. We also counted the words in the student readers and analyzed the comprehensibility of the stories themselves. In this respect, the study differs from other examinations of textbooks in that most other researchers (e.g., Durkin, 1990) first establish a few categories a priori and then determine the prevalence of examples in a textbook of each category,

Previous Research on Basal Reading Series

Chall (1967, 1983) examined four basal reading series: Scott Foresman (1956), Ginn (1961), Scott, Foresman (1962), and Lippincott (1963) to detect shifts in instructional emphasis from a meaning-emphasis approach to a phonics-emphasis approach. Focusing on materials that were widely used in American schools at the time of her study, Chall analyzed all components of the series -- teacher's manuals, student textbooks, and activity books -- and categorized activities by level. Her work led to four conclusions:

1. The purported meaning-emphasis (Ginn, 1961; Scott, Foresman, 1956) and word-recognition emphasis (Lippincott, 1963) series were substantially different.

2. Lippincott introduced words more rapidly than did the other series.

3. Lippincott provided much more word practice in each level.

4. The more recent edition of Scott, Foresman (1962) included more phonics and slightly more new words than did the earlier edition (1956).

More recently, Beck and her colleagues at the University of Pittsburgh studied lower elementary-grade textbooks. This group produced two landmark studies, one on the word- recognition characteristics of eight beginning reading series (Beck & McCaslin, 1978) and a second on the word-meaning characteristics of two series (Beck, McKeown, McCaslin, & Burkes, 1979). The word-recognition study (Beck & McCaslin, 1978) focused on basal materials often used with children who may have difficulty learning to read. The researchers concluded that while the meaning-emphasis series had phonics components, those components really were not used when the children read. In other words, the phonics practice in the meaning-emphasis series was not applied when the series presented new words for children to read. The word-recognition series, on the other hand, first introduced letter sounds, and then called for children to apply the phonics to new words as they read.

In their comprehension study (Beck et al., 1979), the researchers focused on what they hypothesized could be problems in two sets of basal readers. They tallied textual issues, unclear pictures, assumed knowledge, vocabulary, directions for setting the purpose for reading, the division of lessons, and questions designed to be asked at the conclusion of story reading. Beck and her colleagues believed that compensatory education students would have problems with the reading vocabularies of most series, and that these same children would generally have difficulty because the series assumed too much background knowledge. Therefore, they thought the materials were structured with too much dependence upon context. In addition, they asserted that basal publishers should take more care to produce pictures that show things accurately. They raised further concerns about how basal stories were divided into segments and the impact of teachers' questions asked before students developed an overall sense of stories.

Durkin (1981) analyzed five kindergarten through sixth-grade popular basal reading series. Her primary criticism of these materials was that they lacked explicit comprehension *instruction*, and they contained a preponderance of application and practice activities.

More recent work on textbook characteristics has been completed by Barr, Dreeben, and Wiratchai (1983), who analyzed three basal reading series to determine the number of stories and sight words they contained, as well as the new words, consonants, consonant clusters, vowels, and word endings. These analyses were completed to assess the difficulty of the various materials. Barr and her collaborators determined that the series differed with respect to the pace for the introduction of new concepts and words. They also found that the series they studied varied more as to the number of words to be read using phonics than they did for the number of sight words to be mastered.

Further work on lower elementary-grade basal reading textbooks was completed by Winograd and Brennan (1983), who reviewed two series at four grade levels to determine how main idea and topic were defined. They concluded that one series distinguished between topic and main idea when these concepts were introduced in first grade, while the other did not. They also found that both series used listening and reading activities to teach topic and main idea.

Schmidt, Caul, Byers, and Buchmann (1983) studied eight basal reading series to determine the percentage of selections that included expository passages and skills. These researchers found that less than half of the selections contained no expository subject matter at all. The remaining portions of the series had content devoted to science, social studies, or another subject area. They also found that 70% of these materials had no functional skills content. They did discover that the number of expository selections increased by grade level.

Flood, Lapp, and Flood (1984) examined 15 writing styles in eight preprimer through second-grade basal reading series. They categorized these student texts into seven narrative and six expository styles. They found that about 87% of the selections were narrative in style at the preprimer level, but at the second-grade level only about 77% of the selections were narratives.

Hare and Milligan (1984) reviewed four grade levels of materials to examine the number of times main idea was mentioned in an explanation, purpose, evaluation, or directive. They concluded that because the explanations in these series evaded difficult issues, the series were quite similar.

Meyer, Greer, and Crummey (1987) found substantial differences between the four first-grade basal reading series they analyzed for decoding and comprehension interactions as well as the comprehensibility of stories. In addition, they found the three meaning-emphasis series to be virtually equal on the application of phonics concepts. Those series had children apply phonics concepts to only 10% of the words presented, whereas the word-recognition emphasis series they studied had a phonics application rate of 96%.

In summary, systematic research has demonstrated consistently that meaning-emphasis and word-recognition emphasis series differ in the rate at which letter-sound relationships are introduced, and in the rate at which words are introduced. They also differ in the number of words on which students can apply phonics and on practice devoted to word identification.

Five of the studies cited addressed issues of comprehension instruction. Chall (1967) found the series she analyzed to be very similar in the type and number of questions presented. All series had about double the number of text-implicit to text-explicit questions at the preprimer levels. She found a much better mix of questions beyond the first-grade level. Like Chall, Meyer et al. (1987) found a word-recognition emphasis series to include far fewer background-knowledge questions than the meaning-emphasis program. Furthermore, five of the research teams analyzing comprehension instruction in basal reading series concluded independently that comprehension instruction was problematic at the lowest grade levels because of the kinds of questions that teachers were to ask. Questions requiring children to search and find the answers (text-implicit) and background-knowledge questions dominated the kinds of questions the manuals directed teachers to ask children.

Despite these studies of the characteristics of reading series, there has been very little replication of procedures. Furthermore, it appears that there have been almost as many reasons for conducting the studies as there have been studies. Therefore, this study extends our earlier work, which was limited to the first-grade materials in basal reading programs (Meyer et al., 1987) and closely replicates the pioneering work of Chall (1967), reported more than two decades ago.

Our analyses were designed to answer these questions about basal series: (a) How many instructional interactions focus on letter or word recognition at each grade level, and what kinds of different activities fall into those categories? (b) How many instructional interactions have an emphasis on the meaning of the text? (c) How easy is it for children to understand the stories? (d) Is there an apparent instructional flow in each series from first to second grade? Since the first-grade findings of this work have already been reported elsewhere, this report will present the findings from the analyses of the second-grade basals and then compare these findings with our first-grade level findings.

Analysis of Second-Grade Reading Series

Decoding Instruction Methodology and Categories

Instructions to teachers appear in basal series as either questions for them to ask or instructions for them to follow when presenting a lesson to their students. In this report, we refer to these questions

and instructions collectively as "interactions." Therefore, throughout this report, we will refer to the number of decoding interactions or comprehension interactions per series. Within these large categories (decoding and comprehension), we have created numerous subcategories. It is the presence or absence of these subcategories that defines the character of a program, particularly one that has a word-recognition emphasis in comparison to one that places more emphasis on the meaning of text.

In each case, we defined the category for analysis on the basis of the task the teacher was to have the students perform. For example, we designated 11 activities to focus on word recognition or decoding because each of the tasks had students identify letters or words. In each of these activities, the children had to do something related to letter or word identification with minimal or no reference to meaning. These categories were: (a) punctuation or grammar, (b) letter sounds, (c) syllabication or word endings, (d) rules for decoding, (e) letter names, (f) rhyming, (g) sound blending, (h) vocabulary words in the teacher's text, (i) words in student text, (j) words in connected text, and (k) words in isolation. Definitions for each of these categories and examples from each can be found in Appendix A.

Seven raters coded every question or instruction from the teachers' manuals, student books, and supplementary worksheets for decoding in the four second-grade basal reading series sampled. Interrater reliability averaged above .90 for the 11 decoding categories.

Decoding Comparison Results

Tables 1, 2, and 3 present the results of the decoding analysis. These results are presented for each of the four series, divided by book for the three meaning-emphasis series (A,B,C) and divided into 80 lesson segments for the word-recognition reading series (D).

All of the second-grade series show the same pattern for interactions in the letter-sounds and syllabication/endings categories. They decrease the amount of practice students receive on sounds during the second-grade year while increasing the practice on syllabication and endings as the series progress. Letter-naming work decreases substantially in Series A and Series B, but increases slightly in Series C, and increases substantially in Series D. Work on rules increases in Series A and Series B but drops sharply in Series C, and is nonexistent in Series D.

Practice on rhyming shows a very different pattern. There is no rhyming practice in either the Series A or Series D materials, although there is some rhyming practice in Series B, and a little practice in Series C. Series A and Series C show slight increases in the number of vocabulary words from their first to second books, whereas Series B shows a very slight decrease. Series D, however, has a substantial increase in the number of words in the second half of its series when compared to the first half.

The student texts change as much as the teachers' manuals at the second-grade level. There are great increases in the number of words students read in connected text in all four of the series. Series C has the greatest number of words in connected text. For words in isolation, only Series B shows a drop in number of words from the first to the second book.

[Insert Tables 1 and 2 about here.]

Table 3 shows totals for the decoding categories for the second-grade series. Series A and Series B provide almost identical amounts of practice on sounds, whereas Series C and Series D show substantially less practice on sounds in the second half of the second-grade materials. Series D provides at least eight times the amount of practice on letter naming that the other series provide. Series B provides the most practice on syllabication and endings, whereas Series A presents far more rules than any of the other series. Series B has the most rhyming practice of all the series, and Series D is the only

series to teach blending. It also presents the largest amount of practice on vocabulary words and words in isolation, whereas as mentioned previously, Series C has by far the greatest amounts of connected text.

[Insert Table 3 about here.]

Comprehension Instruction Methodology and Categories

The same procedures described for the decoding activities when coding interactions specified in the teachers' manuals of the basal readers were used to examine each program's comprehension characteristics. Once again, the tasks required of the children in the teachers' directions or questions determined how each interaction was coded.

The same seven raters that coded every question or direction in the decoding categories analyzed the comprehension instruction and practice in the teachers' manuals, student books, and supplementary worksheets in the second-grade reading series. Interrater reliability was above .88 for the 23 categories coded. The major distinction among these categories is between the text-explicit, text-implicit, and other categories using the Pearson and Johnson (1978) definitions. Text-explicit answers are "right there" in the text, whereas students figure out text-implicit answers by searching the text to find pieces of the answer to put together. Many additional questions include information students must answer from their background knowledge. Other categories are: story grammar, sequencing, review, style, theme, opinion, prediction, and summary tasks. Definitions and examples for each of the categories can be found in Appendix A.

Comprehension Comparison Results

Table 4 presents the tallies of the comprehension instruction and practice interactions across series. The level of question progresses from the word level through the paragraph level for both explicit and implicit questions, with "level" determined by how much text children must read to answer the question. Only Series B and Series D show an increase of text-explicit, word-level questions from their first- to second-grade books, and only Series A has a drop in word-level, text-implicit questions. The four series show the same pattern for fewer sentence-level, text-explicit questions that they did for word-level text-explicit questions.

All series have fewer sentence-level text-implicit questions in their second books than they did in their first books. All series except Series B increase paragraph-level, text-explicit questions, and Series A has fewer paragraph-level, text-implicit questions in its second book than in its first book. Series D has by far the highest number of picture text-explicit questions, and Series A has more picture-level questions than the other two analytic phonics basal series.

Series C's number of summary questions drops from its first- to second-grade book, whereas all other series increase the number of questions in this category. Series A's increase is very slight and Series D has only two summary questions in all. The four series show quite different patterns for background-knowledge questions. Series B's and Series C's numbers of questions reduce in this category, whereas Series A and Series D increase in the number of this type of question. Prediction questions drop substantially from the first to the second book for all series, except Series D where they actually increase, and opinion questions increase in each program.

Series C and Series B are the only two series that include substantial numbers of theme or style questions, and their patterns are somewhat irregular from their first to second books. All four series have some review questions, but Series A and Series D have the greatest number of questions of these kinds. There is no clear pattern for the sequencing category of questions since Series C and Series A

have fewer sequencing questions in their second books than they have in their first books, and Series B has more sequencing questions in its second book.

Tallies of the coding for character, setting, and plot questions reveal that two Series (C and D) increase the number of character questions from the first to the second books, but only Series C has slightly more setting questions in its second-grade books. Series D has far more plot questions in its second book than any of the other three series. These results appear in Table 4.

[Insert Table 4 about here.]

Table 5 shows summaries for the second-grade books by series. In Table 5, interactions are organized into text-explicit, text-implicit, and one other comprehension category. The interactions in the other categories are for background knowledge, summary, prediction, opinion, theme, style, review, sequencing, character, setting, and plot interactions. This table shows the total amount of comprehension-question practice the series provide at the second-grade level. Series C has by far the greatest number of word-level, text-explicit questions whereas Series A has the largest number of word-level, text-implicit questions. Series B and Series C have far fewer text-explicit, sentence-level questions, but far more text-implicit, sentence-level questions than the other two series. Series C and Series B have substantially more questions of both types at the paragraph level, whereas Series A and Series D have many more questions about pictures.

Series C leads the other three series with more background-knowledge, summary, prediction, theme, and style questions. Series A asks the most opinion questions, and Series D has the most review questions. Series A presents the most sequencing questions. Series D has by far the most character and plot questions whereas Series A asks the most questions about story settings.

[Insert Table 5 about here.]

Comparison of First- and Second-Grade Basal Series

Decoding Comparisons

How do decoding instruction and practice change from first to second grade in these four series? What is the instructional flow from first-grade to second-grade? Answers to these questions appear in Table 6. Series A and Series B provide substantially more practice on sounds in second grade than they do in first grade, while only Series D has more letter-name practice in second grade than it specified in first grade. No series provided any instruction or practice on syllabication or endings in first grade. The second-grade series range greatly in this category, as Series B has more than double the practice Series C and Series A provide, but Series D has no syllabication/ending practice.

Series B and Series C have little practice on rules for first or second grade. Series D has no rule practice, but Series A presents over 150 rule interactions in its second-grade books. Series D and Series A have no rhyming practice in second grade. Series B has some rhyming practice for first and second grade, and Series C has limited practice in both first and second grade. Only Series D has blending practice in its first- and second-grade materials.

Series B and Series A have moderate vocabularies for first and second grade, while Series C and Series D have much larger vocabularies than the other series, especially in second grade. Series C has the most words in stories in its first- and second-grade materials, and Series D had clearly the smallest number of words in its first-grade stories. Series A had the smallest number of words in second-grade stories. Series D has the greatest number of words in isolation; Series C had the smallest number of words in isolation.

[Insert Table 6 about here.]

Comprehension Comparison

These analyses show several differences in text-explicit and text-implicit question frequency in first and second grade. Series C's comprehension questions are primarily text-explicit and text-implicit questions at the word level in second grade. The Series B and Series A series increase the number of text-explicit, word-level questions as well, but Series A reduces its text-implicit questions substantially for second grade while Series B increases text-implicit questions at the second-grade level. Series D has few word-level, text-explicit or implicit questions in second grade, but increases its text-explicit, sentence-level questions. No first-grade series has paragraph-level questions, but Series B had the most paragraph-level, text-explicit questions in second grade. Only Series D has substantially more text-explicit, picture-level questions in second grade in comparison to its first-grade program.

Series C and Series B increase their sentence-level, text-explicit questions in second grade, while Series C and Series B suggest by far the most paragraph-level, text-implicit questions. The text-explicit picture pattern is similar to the text-implicit picture pattern with only Series D focused on far more picture-level questions in second grade than in first grade.

All four series increase the number of background-knowledge questions to ask in second grade over first grade. Series C has far more summary questions in second grade than the other series. Series C and Series D have the most prediction questions, whereas Series A and Series B have the most opinion questions.

Series C and Series B have the most questions on theme and style, and Series D has at least four times the number of review questions as any of the other series. Series A asks the most questions that have children sequence events from a story, and Series D has three to four times the number of questions about characters than the other series. Series A has the greatest number of questions about story settings, and Series D has the most questions about plot. All of these results appear in Table 7.

[Insert Table 7 about here.]

"Comprehensibility" of Basal Reading Text

We used the same procedures for calculating the comprehensibility of the second-grade basal stories that we reported for the first-grade stories (Meyer et al., 1987). We adapted the Beck, McKeown, Omanson, and Pople (1984) definitions and guidelines used to illustrate that children understand more comprehensible text better than they understand less comprehensible text. These analyses concentrated on references that were ambiguous, distant, or indirect; lack of requisite background knowledge; unclear relationships between events; and the inclusion of irrelevant events or ideas.

The first step in the story comprehensibility analysis was to attempt to match three types of stories. When matching stories, we identified stories that were essentially the same type. We chose personifications, dilemmas, and expository selections. We then determined a match by identifying stories of approximately the same length with about the same number of characters. We then counted the problems in the stories caused by ambiguous, distant, or indirect references, lack of requisite background knowledge, unclear relationships between events, or the inclusion of irrelevant events or ideas. We refer to these problems collectively as "incoherences." We also counted the number of thought units, the small portions of text that had meaning.

No adequate personification story existed in Series B, and there was no expository story in Series D. Therefore, at the second-grade level, we were limited to just three expository and personification

selections, and four dilemma stories, along with the unmatched selections. Once we had found the word length of the story, the number of propositions (thought units), and the number of incoherences, we calculated the number of words per incoherence and the number of thought units per incoherence. Next, we analyzed every third story from each series' second book in the same way. These became the unmatched stories. All of these results appear in Table 8.

[Insert Table 8 about here.]

While the words per incoherence and thought units per incoherence are not really accurate representations of how the incoherences are distributed in the stories, they do provide a sense of how frequently problems occur. We believe that it is the density of incoherences that represent an important characteristic of beginning reading series because the density of incoherences suggests how much difficulty children will have comprehending the stories.

Taken as a group, the dilemma stories are the most comprehensible, the expository text stories the next most comprehensible, and the personification stories the least comprehensible. The comparisons between series for matched and unmatched stories reveal that the matched Series C stories are the most comprehensible, followed fairly closely by the Series D stories. The Series A stories run third, and the Series B stories were found to be the least comprehensible. For unmatched stories, the Series D stories were the most comprehensible, followed by Series C and then Series A. These results are also shown in Table 8.

Table 9 shows the means and standard deviations for all four series, matched and unmatched stories for first- and second-grade basals. Two patterns emerge. First, Series C has the largest standard deviation for its second-grade stories for the matched stories. Second, Series D has the biggest standard deviation for the unmatched second-grade stories. These large standard deviations illustrate that stories in these two series vary greatly.

[Insert Table 9 about here.]

Comparisons with Recently Published Basal Reading Series

One might ask if the most recent editions of these series have changed with regard to an instructional flow from first to second grade. To address this question, we randomly selected lessons in the most recent first- and second-grade editions (1989) of two series for analysis to determine if patterns of instructional flow were readily apparent in them. In both cases, the findings paralleled those reported for the earlier editions. For example, in both series rather dramatic changes occur between the first-grade and second-grade materials. In one series, for example, while there is some letter-sound practice at the first-grade level, there is none at the second-grade level. Story length grows from 309 words in the first-grade materials to over 1,000 words in the second-grade selections, and whereas 15 comprehension questions are specified for the first-grade story, there are 26 questions designated for the second-grade story.

Similar patterns were found in the second series. At the first-grade level, whole-word practice on 40 words as well as letter-sound practice dominated the lesson prior to beginning the story which was 572 words long. Thirty-eight comprehension questions accompanied the story. In the second-grade lesson, just 24 whole-word exercises and 21 sentence-comprehension interactions preceded the story. There were no other activities specified prior to beginning to read the story. This change in emphasis alone shows a greater attention to comprehension at the second-grade level, another example of instructional flow. All of the stories accompanying these lessons were by award-winning authors. They were found to be very comprehensible, and therefore the series did not appear to vary along this dimension. More

extensive analyses of these series would no doubt bring forth further evidence of the prevalence of an instructional flow at these grade levels.

Discussion

What did we find out about the flow of decoding and comprehension instruction in these first- and second-grade basal series? What can we say about story "comprehensibility?" This discussion will focus on what we believe are the major findings from this work.

Decoding Analyses

Some of the ways in which the series differ from each other were surprising. Series C and Series D have most of their sounds practice in first grade, whereas Series B and Series A have it in second grade. This illustrates that Series C and Series D have greater phonics instruction in first grade, whereas the other series give children practice with whole words in first grade and then teach them letter sounds and word endings later. In short, the instructional processes for word analysis are philosophically and pragmatically different for the two sets of series. This is in keeping for what we would predict for Series D, the word-recognition series, but it is surprising for Series C because it is traditionally thought of as a meaning-emphasis series. We find Series C and Series D share one instructional sequence from first to second grade, whereas Series A and Series B share another. Nonetheless, each of these series has an instructional flow for teaching children to recognize words.

None of the series includes syllabication or word ending instruction before second grade. This, too, is evidence of an instructional flow. Series D does not use this technique even at the second-grade level, therefore giving further evidence of its dependence upon word-recognition activities. Series A presents about five times as many interactions for rules as the other series. This is clearly its dominant way to further word recognition in second grade. These findings again suggest that the series conceptualize and teach reading quite differently. In fact, two series place greater emphasis upon word meaning, one series balances its activities between word meaning and word recognition, and the fourth series gives greater attention to word recognition.

The dramatic differences between series for vocabulary words and words in stories also reveal interesting patterns. Series D has by far the greatest number of vocabulary words and words in isolation, and yet the lowest number of words in stories at the first-grade level. This illustrates that this series emphasizes reading at the word level during its first year of reading instruction. This finding is in keeping with the series' word recognition approach. All of the other series do just the opposite. They supply far greater amounts of connected text, as would be expected in series with greater attention to word meaning.

Given the complementary aspects of these four series at the first- and second-grade levels, it appears that schools should be encouraged to keep students in the same series for at least the first two years of reading instruction. With all of the series, there were compensations in second grade for things taught (or omitted) in first grade, thus suggesting a flow in each series for word recognition and word meaning at these grade levels.

Comprehension Analyses

Our conclusions after the comprehension analyses are similar to those for the decoding findings. These publishers all appear to have had "plans" for comprehension practice. The plans differ somewhat from publisher to publisher and grade to grade. All of the series offer practice at the word, sentence, and paragraph levels by the end of second grade, however.

Series A clearly provides the most comprehension practice at the first-grade level, while Series C does this in second grade. Once again, these findings reflect a difference in flow that is tied to the series' word-recognition activities and beliefs. Series A would be expected to have more comprehension activities because of its commitment to focus upon meaning. More interesting than simple totals of the kinds of comprehension interactions these series present at these two grade levels, however, are the implications based upon these findings. Series A and Series C are the leaders in text-based practice. This practice teaches children that answers to questions about what they read are in the text they read. This is an important lesson. All of the series increase comprehension interactions at the paragraph level in their second-grade materials while decreasing interactions answered in pictures after first grade. Once again, the two series (C, D) that provided the most practice on letter sounds show the greatest number of text-explicit and text-implicit questions at the second-grade level. The increase in background-knowledge questions for all series and the appearance of theme, style, review, sequencing, character, setting, and plot interactions reveal that all series do more sophisticated work on comprehension in second grade than they did in first grade. This is further evidence of an instructional flow.

Story Analyses

We expected a different ranking for the comprehensibility of the stories coded from the series. Lore about basal readers suggests that expository selections are particularly poorly written. That is not what we found. It was also surprising to discover that the Series D stories proved to be more comprehensible than any of the other series at the first-grade level for matched stories because this series has often been criticized for its stories.

On the other hand, series A's stories dropped from second place for matched stories in first grade to third place in second grade. This program's reputation has in large part been built upon its stories, so this too was a great surprise. Series B's stories rank last in both categories for both years. This at least shows consistency. It is also surprising that with the exception of the Series C program, whose stories appear to improve substantially from first to second grade, the other series' stories are actually less comprehensible in second grade than they were in first grade. Given the dramatic increases in vocabulary from first to second grade, and therefore the increased opportunities for meaningful text, this finding is puzzling. It also suggests that although there is clear evidence of an *instructional* flow for both word-recognition and word-meaning activities in the four series from first grade to second grade, the stories fall short of capturing this flow. The meaning-emphasis series stories leave quite a bit to be desired with the exception of Series C, and the word-meaning series stories also drop off substantially in comprehensibility between first and second grade.

Overall Findings

No series appears to do it all. This is essentially what Chall also found in her analysis of basal readers in 1967. Therefore, although we extended Chall's procedures, we have essentially replicated her findings. This suggests that while there may have been substantial changes by publishers in response to research on basal readers, many aspects of their basal reading programs have remained intact for over two decades. Series C comes the closest to distributing practice between word recognition and word meaning, while also providing story reading practice in the most comprehensible stories, but to have a series that truly balances emphases at the first- and second-grade levels might require using two series together or at least having teachers supplement one aspect of a series to compensate for its deficiencies. That is how it was almost a quarter of a century ago, and that is how it is today.

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Authors' Note

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Table 1

Second-Grade Basal Reader Decoding and Text Analysis

	Analytic Phonics						Student Text	
Level	Sounds	Syllabications/ Endings	Letter Naming	Rules	Rhyming	Number of Vocabulary Words	Words in Student Text	Words in Isolation
Series A								
F	2,010	127	336	58	0	310	24,161	1,761
G	1,267	440	328	105	0	366	40,508	2,034
Series B								
6	1,879	489	269	7	62	341	35,174	1,753
7	1,397	621	175	20	99	337	44,693	905
Series C								
7	782	174	81	31	8	610	50,154	1,462
8	720	307	88	4	2	701	54,446	1,872

Table 2

Second-Grade Synthetic Phonics Series: Decoding and Text Analysis

	Synthetic Phonics					Student Text	
Lessons	Sounds	Letter Naming	Blending	Rhyming	Number of Vocabulary Words	Words in Student Text	Words in Isolation
1 - 79	1,007	85	567	0	1,830	23,614	1,956
80 - 160	332	3,930	12	0	2,324	43,786	3,746

Table 3

Summary Second-Grade Basal Reader Decoding and Text Analyses

	Analytic Phonics							Student Text	
Program	Sounds	Letter Naming	Syllabications/ Endings	Rules	Rhyming	Blending	Number of Vocabulary Words	Words in Student Text	Words in Isolation
C	1,502	169	481	35	10	0	1,311	104,600	3,334
B	3,276	444	1,110	27	161	0	678	79,867	2,658
A	3,277	664	567	163	0	0	676	64,669	3,795
D	1,339	4,015	0	0	0	579	4,154	67,400	5,702

Table 4

Second-Grade Basal Reader Comprehension Question Analysis by Level

	Word		Sentence		Paragraph		Picture												
Level	Text Explicit	Text Implicit	Text Explicit	Text Implicit	Text Explicit	Text Implicit	Text Explicit	Text Implicit	Summary	Background Knowledge	Predictions	Opinion	Theme	Style	Review	Sequencing	Character	Setting	Plot
Series C																			
7	764	906	371	791	30	37	12	27	89	235	116	96	41	78	59	109	117	26	152
8	558	1,045	165	550	73	182	22	20	51	217	45	117	18	50	14	51	119	42	116
Series B																			
6	341	143	336	820	95	117	103	29	15	234	58	92	16	1	56	56	135	30	203
7	514	363	195	759	71	145	11	21	43	92	44	195	28	103	0	87	101	23	185
Series A																			
F	23	398	284	397	13	44	129	103	39	49	70	118	4	0	39	146	200	137	382
G	351	47	1,390	109	98	35	121	24	42	267	15	216	0	4	47	105	166	60	34
Series D																			
Lessons 1-79	0	0	455	51	0	0	217	103	0	44	51	32	1	0	57	0	344	52	702
Lessons 80-160	38	2	369	21	25	12	167	135	2	47	66	44	4	0	291	2	809	53	895

Table 5

Summary Second-Grade Basal Reader Comprehension Question Analyses

	Text Explicit Questions				Text Implicit Questions				Other Types of Comprehension Questions										
Program	Word	Sentence	Paragraph	Picture	Word	Sentence	Paragraph	Picture	Background	Summary	Prediction	Opinion	Theme	Style	Review	Sequencing	Character	Setting	Plot
Series C	1,322	536	103	34	1,951	1,341	219	47	452	140	161	213	59	128	73	160	236	68	268
Series B	855	531	166	114	506	1,579	262	50	326	58	102	287	44	104	56	143	236	53	388
Series A	274	1,674	111	250	445	506	79	127	316	81	85	334	4	4	86	251	366	197	416
Series D	38	824	25	384	2	72	12	238	91	2	117	76	5	0	348	2	1,153	105	1,597

Table 6

Summary of First- and Second-Grade Basal Reader Decoding Instruction and Text Analysis

							Reading Number of		
Program	Sounds	Letter Naming	Syllabications/ Endings	Rules	Rhyming	Blending	Vocabulary Words	Words in Stories	Words in Isolation
Series C									
1st Grade	2,641	346	0	35	44	0	871	20,982	
2nd Grade	1,502	169	481	35	10	0	1,311	104,600	1,334
Series B									
1st grade	1,764	670	0	10	292	0	425	17,164	
2nd grade	3,276	444	1,110	27	161	0	678	79,867	2,658
Series A									
1st grade	1,478	808	0	8	119	0	607	12,264	
2nd grade	3,277	664	567	163	0	0	676	64,669	3,795
Series D									
1st grade	2,655	0	0	0	278	805	1,236	5,919	
2nd grade	1,339	4,015	0	0	0	579	4,154	67,400	5,702

Table 7

Summary of First- and Second-Grade Basal Reader Comprehension Instruction

	Text Explicit Questions				Text Implicit Questions				Other Types of Comprehension Questions									
Program	Word	Sentence	Paragraph	Picture	Word	Sentence	Paragraph	Picture	Background	Summary	Prediction	Opinion	Theme	Style	Review	Sequencing	Character	Setting	Plot
Series C																			
1st grade	178	751	0	109	567	1,107	0	472	222	100	181	135							
2nd grade	1,322	536	103	34	1,951	1,341	219	47	452	140	161	213	59	128	73	160	236	68	268
Series B																			
1st grade	216	977	0	232	494	494	0	126	213	142	100	111							
2nd grade	855	531	166	114	506	1,579	262	50	326	58	102	287	44	104	56	143	236	53	388
Series A																			
1st grade	120	1,192	0	425	851	854	0	273	128	80	167	125							
2nd grade	274	1,674	111	250	445	506	79	127	316	81	85	334	4	4	86	251	366	197	416
Series D																			
1st grade	155	541	0	0	0	141	0	0	49	0	0	41							
2nd grade	38	824	25	384	2	72	12	238	91	2	117	76	5	0	348	2	1,153	105	1,597

Table 8

Comprehensibility Analyses of Matched and Unmatched Second-Grade Stories

			Number of				Average Number of	
Publisher	Story Type	Title	Words	Thought Units	Characters	Incoherences	Words Per Incoherence	Thought Units Per Incoherence
Series C	P	*Charlie the Tramp*	1646	204	3	46	35.78	4.43
Series B	P	(NONE EXISTS)	—	—	—	–	–	–
Series A	P	*Impossible Possum*	1539	156	5	63	24.43	2.48
Series D	P	*Turtle and Frog*	1626	225	3	27	60.22	8.33
Series C	D	*Bears Aren't Everywhere*	909	119	3	10	90.90	11.90
Series B	D	*The Storm*	824	125	3	30	27.47	4.17
Series A	D	*Do You Have the Time Lydia?*	964	162	3	29	33.24	5.59
Series D	D	*Mr. Hall*	887	115	2	16	55.44	7.19
Series C	E	*Where is Water?*	659	77	0	11	59.91	7.00
Series B	E	*Racing with the Wind*	650	64	0	43	15.12	1.49
Series A	E	*Animal Coloring*	366	37	0	5	73.20	7.40
Unmatched Selections								
Series C		*The Farmer's Hut*	865	122	7	22	39.32	5.55
		Speck	830	113	6	14	59.29	8.07
		The Mystery of the Suitcase	769	99	5	19	40.47	5.21
		Mr. Blynn's Kite	770	93	5	24	32.08	3.88
		Guess and Try	744	120	4	19	39.16	6.31
		Shadows on the Moon	769	92	2	23	33.43	4.00
		The House of the Sun	871	107	4	15	58.07	7.13

Table 8 (Continued)

Publisher	Story Type	Title	Number of				Average Number of	
			Words	Thought Units	Characters	Incoherences	Words Per Incoherence	Thought Units Per Incoherence
Unmatched Selections								
Series B		*Olof and the Dragon*	739	95	4	52	14.21	1.83
		Monsters in the Schoolroom	224	47	0	29	7.72	1.62
		Mrs. Simkin's Bed	730	88	2	54	13.52	1.63
		The Painted House	564	75	5	37	15.24	2.03
		The Bad-Luck Glove	1206	175	3	89	13.55	1.97
		The Brothers Grimm	457	45	2	26	17.58	1.73
		The First Hot Air Balloon	614	76	2	25	24.56	3.04
Series A		*Secret Hiding Places*	789	118	10	31	25.45	3.81
		Andy, Mr. Wagner	1530	215	10	48	31.88	4.48
		A New Kind of Zoo	222	24	0	4	55.50	6.00
		Case of the Stolen Code Book	1167	169	6	26	44.88	6.50
Series D		*Dan the Teacher and Dan the Helper*	406	50	4	6	67.67	8.33
		The Ugly Duckling	264	38	2	6	44.00	6.33
		Ott is in Genie School	4463	598	4	43	103.79	13.91
		Carl Tricks the Crow	435	65	2	8	54.38	8.13
		The Rabbit and the Turtle	814	85	2	13	62.62	6.54
		The Fox Wants a Cone	540	66	3	7	77.14	9.43

Table 9

Words Per Incoherence for Matched and Unmatched First- and Second-Grade Basal Stories

	Matched Stories		Unmatched Stories	
Publisher	$\bar{X}$	(SD)	$\bar{X}$	(SD)
Series C				
1st Grade	27.40	(18.62)	49.38	(29.68)
2nd grade	62.20	(27.63)	49.09	(19.77)
Series B				
1st Grade	12.80	(2.37)	27.00	(23.99)
2nd Grade	21.30	(8.73)	15.20	(5.09)
Series A				
1st Grade	78.10	(58.91)	118.50	(29.24)
2nd Grade	43.62	(25.99)	37.82	(12.16)
Series D				
1st Grade	244.50	(4.95)	104.97	(32.99)
2nd Grade	57.83	(3.38)	68.27	(20.76)

APPENDIX A

Decoding and Comprehension Categories

Decoding Categories

Punctuation/grammar. Questions or directive statements to students intended to have students identify correct punctuation, primarily periods, question marks, etc., or make appropriate grammatical choices such as "Mary and John slided/slid down the hill on their sleds."

Sounds. The category of sounds is a combination of consonant and vowel sounds. These are questions or directive statements intended to have children identify consonant or vowel sounds. For example, "What sound does this letter make?" or "What sound do you hear at the beginning . . . of this word?" Questions about initial or final consonants were also counted in this category.

Syllabication/endings. These questions ask students to divide words into syllables, indicate how many syllables there are in a word, identify common suffixes, or provide appropriate word endings (ed, ing, ly, etc.).

Rules. Questions or directive statements in this category require that students produce or apply the correct phonics generalization for a regularly spelled word, for example, "How do you know that the e in 'bone' is silent?" or "What rule helps you figure out the vowel sound in 'rail'?"

Letter names. These questions include *naming* individual letters (upper and lower case), letter writing, and tracing. The focus here is on the name of the symbol.

Rhyming. This is an oral task. The teacher has the children produce a series of rhyming words. Frequently, the teacher is to give an ending and several initial consonants to have children produce a series of rhyming words. Occasionally, the teacher is to begin with a root word and have the children produce just one word to rhyme with it.

Blending. These are written words. They may be presented on the chalkboard, in a teachers' presentation book, on cards, or in a teachers' "Big Book." The teachers' instructions require that the children sound words out. With this instruction, the word 'me' would sound like this, 'mmmmeeee', for example. These may be real or nonsense words.

Vocabulary words in teachers' guides. These are words listed at the beginning of each lesson for the teacher to introduce. Typically, these words appear in the reading selection which accompanies the lesson.

Words in students' text. This number represents a count of all words in the students' materials.

Words in teachers' text. This category represents a tally of all words in *connected text* (phrases to short stories) which the teacher presents on cards, handouts or the chalkboard for students to read. Words in short passages which the teacher is to read to students for purposes of listening comprehension practice are also included in this category.

Words in isolation. Words tallied in this category are presented without any context clues. The teacher is to have the child/children identify the word simply by looking at it. The teacher may ask "What word?" and then say nothing more.

Comprehension Categories

Word comprehension, text explicit. Students read a word. Teacher checks their understanding of that word. For example, children read the word, "mat." Teacher asks, "What is a mat?"

Sentence comprehension, text explicit. Student reads a sentence, and teacher checks understanding of the sentence by asking a question answered explicitly in the sentence. For example, after a student reads, "Tom and Maria went to the store," a teacher asks, "Who went to the store?" or "Where did Tom and Maria go?"

Paragraph comprehension, text explicit. These are the same kind of questions defined for the sentence comprehension, text explicit category, but in this category, the unit of text students read is a paragraph. Questions appear after the paragraph, and information to answer the questions appeared expressly in the paragraph.

Picture comprehension, text explicit. These questions are answered explicitly in pictures presented to the students. For example, "Look at the picture. What is the dog holding in his mouth?"

Word comprehension, text implicit. Students read connected text, then the teacher checks their understanding of a single word in the text. For example, after the children read, "The sky grew

dark and soon it began to rain," the teacher asks, "What does the word 'grew' mean in this sentence?"

Sentence comprehension, text implicit. Students read a sentence, and then the teacher checks their understanding of the meaning stated implicitly in the sentence. For example, after the children read, "Michael was in third grade and his sister Jane had not started school yet," a teacher asks, "Who was older, Michael or Jane?"

Paragraph comprehension, text implicit. These are the same kind of questions defined for the sentence comprehension, text implicit category, but in this category the unit of text students read is a paragraph. Questions appear after the paragraph, and children must search and put information together from the paragraph.

Picture comprehension, text implicit. These questions are answered implicitly in pictures presented to the students. For example, "Look at the picture. What does it look like the puppy has chewed up?" In this category there might be one regular sock and a torn remnant the same color and texture, etc., as the sock in a heap next to the sock.

Character, text explicit. Specific mention is made of naming the "characters" for questions tallied in this category, and the characters are identified explicitly in the text.

Setting, text explicit. Specific mention is made of naming the "setting" for this story for questions in this category, and the setting was identified explicitly in the text.

Plot, text explicit. Specific mention is made of the "plot" for this category, and the plot is explicitly detailed in the text.

Theme, text explicit. Specific mention is made of the "theme" for this category, and the theme is explicitly detailed in the text.

Character, text implicit. Characters are mentioned, but not identified explicitly as to their roles, etc. for questions tallied in this category.

Setting, text implicit. The location of the story is ambiguous, and therefore not expressly stated for questions tallied in this category.

Plot, text implicit. Story line somewhat circuitously presented and therefore indirectly presented as "plot" for questions tallied in this category.

Theme, text implicit. Story line is somewhat circuitously presented and therefore, the "theme" is nebulous as counted for questions tallied in this category.

Scriptal (background knowledge) questions. The source of information for the child's answer is from the child's experience beyond the instruction taking place at the time the teacher asks these questions. For example, "In this story, it says Anna will visit the planetarium; what sorts of things do you think she'll see there?" (providing a description of a planetarium has not been part of the story). Children would therefore have to answer this question from information they already know about a planetarium.

Summary questions. Students read a passage and then the teacher asks a question about the whole passage that requires them to give the gist of the information they have read.

Style questions. These are questions about the literary style of a piece--whether it is narrative, expository, etc.

Review questions. Questions in one story that relate to a previous story. Generally, these questions appear at the beginning of a story continued for a number of days.

Sequencing questions. These questions require students to order events or actions from a story. For example, "Arrange the following sentences in the order that they took place in the story."

Prediction questions. These questions require students to predict an outcome from an action or series of events taking place in the story. For example, "What do you think Sean will do next?"

Opinion questions. These are questions to elicit children's opinions or preferences. For example, "Would you like to go to San Antonio?" "Why or why not?" Children rather clearly give their own reasons when answering these questions.